

VS  
SEQ  
ID No: 9

RESULT /  
N70546/c  
LOCUS N70546 440 bp mRNA EST 14-MAR-1996  
DEFINITION za83c12.s1 Soares\_fetal\_lung\_NbHL19W Homo sapiens cDNA clone  
IMAGE:299158 3', mRNA sequence.  
ACCESSION N70546  
NID g1227126  
VERSION N70546.1 GI:1227126  
KEYWORDS EST.  
SOURCE human.  
ORGANISM Homo sapiens  
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Mammalia;  
Eutheria; Primates; Catarrhini; Hominidae; Homo.  
REFERENCE 1 (bases 1 to 440)  
AUTHORS Hallier, L., Clark, N., Dubuque, T., Elliston, K., Hawkins, M.,  
Holtman, M., Hultman, M., Kucaba, T., Le, M., Lennon, G., Marra, M.,  
Parsons, J., Rifkin, L., Rohlfing, T., Soares, M., Tan, F.,  
Trevaskis, E., Waterston, R., Williamson, A., Wohldmann, P. and  
Wilson, R.  
TITLE The WashU-Merck EST Project  
JOURNAL Unpublished (1995)  
COMMENT On Apr 14, 1993 this sequence version replaced gi:785683.

Contact: Wilson RK  
Washington University School of Medicine  
4444 Forest Park Parkway, Box 8501, St. Louis, MO 63108  
Tel: 314 286 1800  
Fax: 314 286 1810  
Email: est@watson.wustl.edu  
This clone is available royalty-free through LLNL ; contact the  
IMAGE Consortium (info@image.llnl.gov) for further information.  
Seq primer: ml3 -40 forward  
High quality sequence stop: 354.

FEATURES  
source  
Location/Qualifiers  
1. 440  
/organism="Homo sapiens"  
/db\_xref="GDB:1244082"  
/db\_xref="taxon:9606"  
/map="3 p21.2-p13"  
/clone="IMAGE:299158"  
/clone\_lib="Soares\_fetal\_lung\_NbHL19W"  
/dev\_stage="19 weeks"

/lab\_host="DH10B (ampicillin resistant)"  
/note="Organ: lung; Vector: pT7T3D (Pharmacia) with a  
modified polylinker; Site\_1: Not I; Site\_2: Eco RI; 1st  
strand cDNA was primed with a Not I - oligo(dT) primer  
[5'-TGTTACCAATCTGAAGTGGGAGCGGCCCAATTTTTTTTTTTT-3']  
double-stranded cDNA was size selected, ligated to Eco RI  
adapters (Pharmacia), digested with Not I and cloned into  
the Not I and Eco RI sites of a modified pT7T3 vector  
(Pharmacia). Library went through one round of  
normalization to a Cot = 5. Library constructed by Bento  
Soares and M. Fatima Bonaldo. This library was constructed  
from the same fetus as the fetal heart library, Soares  
fetal heart NbHL19W."

BASE COUNT 89 a 96 c 120 g 133 t 2 others  
ORIGIN

Query Match 2.9%; Score 301.6; DB 25; Length 440;  
Best Local Similarity 95.4%; Pred. No. 5.1e-46;  
Matches 372; Conservative 0; Mismatches 16; Indels 2; Gaps 2;

Qy 9010 aatcctgacgttcataaaaaactgtcgaaacaagtccttgcttagaagtcgacgtaccgga 9069  
|||||  
Db 440 AATCCTGACGTTTCATAAAACTGTCGAAACAAGTCCTTGCTTAGAAGTCGACGTACCGGA 381  
Qy 9070 tgcccg-cagcggtgctgggaaaagatgtgcctccccctccctagtttctgtaaaccc-a 9127  
|||||  
Db 380 TGCCCCGCAGCGTTGCTGGGAAAAGATGTGCCTCCCTCTCTAGTTTCTGTAAACCGGA 321  
Qy 9128 agcccaagtcgtctttcccgcgagtcgcaaatccctgccatctgcgaaggggaagcaga 9187  
|||||  
Db 320 AGCCCAAGTCTGCTTTCCCGCGCAGTCCAAATCCCTGCCATCTGCGAAGGGGAAGCANG 261  
Qy 9188 gccctcctggggccaggcaaggccccctctgacttcagggatagactctagcactttagccc 9247  
|||||  
Db 260 ACGCTCCGTTGGGCCAGCAAGGCCCTCTGACTTCAGGGATAGACTCTAGCACTTTAGGCC 201  
Qy 9248 caagtaacctgaagtccacagaccacagcagaatgtgggggtccaaagggccgcccacca 9307  
|||||  
Db 200 CAAGTAACCTGAAGTCCCACAGACCACAGCAGAATGTGGGGTCCAAGGGGCCGNACCA 141  
Qy 9308 ggcaacagcaaatctgagatgtttcctaaaaccagtgtttccctgcaccggataagacaa 9367  
|||||  
Db 140 GGCAACAGCAATCTGAGATGTTTCTAAAACAGTGTTCCTCCCTGCACCGGATAAGACAA 81  
Qy 9368 aaagacccgagacaaaattgaaacctcttc 9397  
|||||  
Db 80 AAAGACCCGAGACAAAATGAAACCCGTC 51

RESULT 4  
N70546  
LOCUS N70546 440 bp mRNA EST 14-MAR-1996  
DEFINITION za83cl Soares\_fetal\_lung\_NbHL19W Homo sapiens cDNA clone  
IMAGE:2 58 3', mRNA sequence.  
ACCESSION N70546  
NID g12271  
VERSION N70546.1 1227126  
KEYWORDS EST  
SOURCE human

ORGANISM Homo sap  
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Mammalia;  
Eutheria; Primates; Artiodactyla; Hominini; Hominidae; Homo.

REFERENCE 1 (bases from 1 to 440)  
AUTHORS Hillier, L., Mark, N., Dubuque, T., Elliston, K., Hawkins, M.,  
Holman, M., Mattman, J., Kucaba, T., Le, M., Lennon, G., Marra, M.,  
Parsons, J., Rifkin, B., Rohlfsing, T., Soares, M., Tan, F.,  
Trevaskis, E., Water, R., Williamson, A., Wohlmann, P. and  
Wilson, R.

TITLE The WashU-Merck EST project  
JOURNAL Unpublished (1995)  
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Fax: 314 286 1810  
Email: est@watson.wustl.edu  
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IMAGE Consortium (info@image.llnl.gov) for further information.  
Seq primer: m13 -40 forward  
High quality sequence stop: 54.

FEATURES  
source Location/Qualifiers  
1..440  
/organism="Homo sapiens"  
/db\_xref="GDB:1244082"  
/db\_xref="taxon:9606"  
/map="3 p21.2-p13"  
/clone="IMAGE:299158"  
/clone\_lib="Soares\_fetal\_lung\_NbHL19W"  
/dev\_stage="19 weeks"  
/lab\_host="DH10B (ampicillin resistant)"  
/note="Organ: lung; Vector: pT7T3D (Pharmacia) with a  
modified polylinker; Site\_1: Not I; Site\_2: Eco RI; 1st  
strand cDNA was primed with a Not I - oligo(dT) primer  
[5'-TGTTACCAATCTGAAGTGGGAGCGGCCGCAATTTTTTTTTTTT-3']  
double-stranded cDNA was 9/26 selected, ligated to Eco RI  
adapters (Pharmacia), digested with Not I and cloned into  
the Not I and Eco RI sites of a modified pT7T3 vector  
(Pharmacia). Library went through one round of  
normalization to a Cot = 5. Library constructed by Beatriz  
Soares and Mafatima Bonaldo. This library was constructed  
from the same fetus as the fetal heart library, Soares  
fetal heart NbHL19W."

BASE COUNT 89 a 96 c 120 g 133 t 2 others  
ORIGIN

Query Match 9.5% Score 303.2; DB 25; Length 440  
Best Local Similarity 95.6%; Pred. No. 7.7e-78;  
Matches 373; Conservative 0; Mismatches 15; Indels 2; Gaps 2;

QY 2206 aatcctgacgttc aaaaactgtcgaa gtccttgcttga ggcacgtaccgga 225  
Db 440 AATCCTGACGTTCTA AACTGTCTGAAA AAGTCCTTGCTTACGACGTACC GGA 381  
QY 2266 tgcccgcc-cagcgtt gaaagagatgtatccctctctctagttttgttaaacc-a 2323  
Db 380 TGCCCCCGCAGCGTTG GGGGAAAAGATGTGCTCCCTCTCTGTTTCTGTA AACC CGA 321  
QY 2324 agcccaagtctgttttcccgggcagtcgaatccctgcatctgcccaggggaagcaga 2  
Db 320 AGCCCAAGTCTGCTTTCCCGCGCAGTCCAAATCCCTGTCATCTGCGAAGGGGAAGC 1  
QY 2384 gccctcctggggccaggcaaggccctctgacttcaggatagactctagcacttta 2443  
Db 260 ACGCTCCGTGGGCCAGCAAGGCCCTCTGACTTCAGGGATAGAGCACTTAAACCC 201  
QY 2444 caagtaacctgaagtccacagaccacagcagaatgtgggggtc gggggccgccacca 2503  
Db 200 CAAGTAACCTGAAGTCCACAGACCACAGCAGAATGTGGGGGTCCAGGGGCCGNCACCA 141  
QY 2504 ggcacacgcaatctgagatgtttcctaaaaaccagtgtttccctgcaccggataagaaa 2563  
Db 140 GGCAACAGCAATCTGAGATGTTTCTCTAAAACAGTGTTCCTCTGCACCGGATAAGACAA 81  
QY 2544 aaagacccgagacaaaattgaaacctcttc 2593  
Db 80 AAAGACCCGAGACAAAATGAACACCGCTC 51

RESULT 2  
 W05407  
 LOCUS W05407 473 bp mRNA EST 23-APR-1996  
 DEFINITION za83c12.r1 Soares\_fetal\_lung\_NbHL19W Homo sapiens cDNA clone  
 IMAGE:299158 5' similar to SW:ZF26\_MOUSE P10076 ZINC FINGER PROTEIN  
 ZFP-26 ;, mRNA sequence.  
 ACCESSION W05407  
 NID g1278138  
 VERSION W05407.1 GI:1278138  
 KEYWORDS EST.  
 SOURCE human.  
 ORGANISM Homo sapiens  
 Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Mammalia;  
 Eutheria; Primates; Catarrhini; Hominidae; Homo.  
 REFERENCE 1. (bases 1 to 473)  
 AUTHORS Hillier, L., Clark, N., Dubuque, T., Elliston, K., Hawkins, M.,  
 Holman, M., Hultman, M., Kucaba, T., Le, M., Lennon, G., Marra, M.,  
 Parsons, J., Rifkin, L., Rohlfing, T., Soares, M., Tan, F.,  
 Trevaskis, E., Waterston, R., Williamson, A., Wohldmann, P. and  
 Wilson, R.  
 TITLE The WashU-Merck EST Project  
 JOURNAL Unpublished (1995)  
 COMMENT  
 Contact: Wilson RK  
 Washington University School of Medicine  
 4444 Forest Park Parkway, Box 8501, St. Louis, MO 63108  
 Tel: 314 286 1800  
 Fax: 314 286 1810  
 Email: est@watson.wustl.edu

This clone is available royalty-free through LLNL ; contact the  
 IMAGE Consortium (info@image.llnl.gov) for further information.  
 Seq primer: ETPRimer

FEATURES  
 source  
 Location/Qualifiers  
 1. 473  
 /organism="Homo sapiens"  
 /db\_xref="GDB:1244082"  
 /db\_xref="taxon:9606"  
 /clone="IMAGE:299158"  
 /clone\_lib="Soares\_fetal\_lung\_NbHL19W"  
 /dev\_stage="19 weeks"  
 /lab\_host="DH10B (ampicillin resistant)"  
 /note="Organ: lung; Vector: pT7T3D (Pharmacia) with a  
 modified polylinker; Site\_1: Not I; Site\_2: Eco RI; 1st  
 strand cDNA was primed with a Not I - oligo(dT) primer  
 [5'-TGTTACCAATCTGAAGTGGGAGCGCGCAATTTTTTTTTTTTTTTT-3']  
 double-stranded cDNA was size selected, ligated to Eco RI  
 adapters (Pharmacia), digested with Not I and cloned into  
 the Not I and Eco RI sites of a modified pT7T3 vector  
 (Pharmacia). Library went through one round of  
 normalization to a Cot = 5. Library constructed by Bento  
 Soares and M. Fatima Bonaldo. This library was constructed  
 from the same fetus as the fetal heart library, Soares  
 fetal heart NbHL19W."

BASE COUNT 139 a 104 c 126 g 100 t 4 others  
 ORIGIN

Query Match 11.5%; Score 367.8; DB 25; Length 473;  
 Best Local Similarity 96.4%; Pred. No. 8.4e-97;  
 Matches 407; Conservative 0; Mismatches 13; Indels 2; Gaps 1;

QY 1106 gtagcaaggagaaagccactcactgctccgagtgccggcaaaagctttcagaacotaccacc 1165  
 Db 1 GTAGCAAGGAGAAGCCACTCACTGCTCCGAGTGC GGCAAGCTTTCAGAACCTACCACC 60  
 QY 1166 agctgggtttgcaactccagggtccacaagaaggacggaggccggcgaggagtgcdcca 1225  
 Db 61 AGCTGGTCTTGCACTCCAGGGTCCACAAGAGGACCGGAGG--CGGTCGGGAGTCGCCA 118  
 QY 1226 ccattgtctgtggacgggagggcagccggggacgtgttctctgacctgcgcgccctctgg 1285  
 Db 119 CCATGTCTGTGGACGGGAGGACCGGGGACGTGTTCTCTGACCTCGCCGCCCTCTGG 178  
 QY 1286 atgaaaatggagccgtggatcgaggggaaggtgttctgaagacggatctgaggatgggc 1345  
 Db 179 ATGAAAATGGAGCCGTGGATCGAGGGGAAGGTGTTCTGAAGACGGATCTGAGGATGGGC 238  
 QY 1346 ttcccgaaggaaatccatctggataaaaatgatgatggaggaaaaataaacatcttacat 1405  
 Db 239 TTCCCGATAGAATCCATCTGGATAAAAATGATGATGGAGGAAAAATAAACATCTTACAT 298  
 QY 1406 cttcaagagagtgtagttattgtggaaagttttccgttcaaattattacctcaatatcc 1465  
 Db 299 CTTCAAGAGAGTGTAGTTATTGTGGAAAGTTTTCCGTTCAAATTATTACCTCAATATTC 358  
 QY 1466 attccagaacgatacagggtgaaaaaccatacaaatgtgaattttgtgaatatgtgtcag 1525  
 Db 359 ATCTCAGAACGCATACAGGTGAAAAACCATACAAATGTGAATTTGTGAATATGCTGCAN 418  
 QY 1526 cc 1527  
 Db 419 CC 420

VS SEQ ID NO: 9

RESULT 14  
Q63862/c  
ID Q63862 standard; cDNA; 283 BP.  
AC Q63862;  
DT 29-JAN-1995 (first entry)  
DE AP2 sequence obt'd. by PCR for tumour specific DNA.  
KW Arbitrary primers; AP-PCR; amplification; tumour cells; cancer;  
KW insertions; deletions; ss.  
OR Synthetic.  
PN W09411531-A.  
PF 26-MAY-1994.  
PA 12-NOV-1993; U10904.  
PF 13-NOV-1992; US-975737.  
PA (CALB-) CALIFORNIA INST BIOLOGICAL RES.  
PI Ionov Y, Malkhosyan S, McClelland M, Peinado MA;  
PI Perucho M, Welsh J;  
DR WPI; 94-183529/22.  
PT Identification of tumour cells - by analysing DNA to determine  
PT whether insertions or deletions have occurred in reiterated

PT sequences  
PS Disclosure; Page 52; 67pp; English.  
CC The sequence was obt'd. by PCR with arbitrary PCR primers used to  
CC detect insertions or deletions in DNA sequences. Such mutations are  
CC markers of cancer so such primers can be used in the diagnosis of  
CC cancer, esp. colorectal, stomach or pancreatic tumours.  
CC See also Q63837-63.  
SQ Sequence 283 BP; 63 A; 77 C; 94 G; 49 T;

Query Match 2.0%; Score 207.2; DB 1; Length 283;  
Best Local Similarity 87.3%; Pred. No. 5e-37;  
Matches 227; Conservative 0; Mismatches 33; Indels 0; Gaps 0;

QY 7456 tgagacggagttctgtctgtcacctcggctggagtgagtgcaatttcgggtcact 7515  
|||||  
Db 283 TGAGACGGAGTCTCGCTCTGTGCGCCAGGCTGGAGTGCAGTGGCGCGATCTCGGCTCACT 224  
QY 7516 gcagcctccacctccttggttcaagcaataactcctgcctcagcctccccagtagttggga 7575  
|||||  
Db 223 GCAACCTCCACCTCCCGGTTCAAGCGATTCTCCTGCCTCAGCCTCCCGAGTAGCTGGGA 164  
QY 7576 ttacagggtacctgccaccacacccggctaatttctgtatttttagtagagatgggggttc 7635  
|||||  
Db 163 TTACAGGCGCGCGCCACCACGCCCGCTAATTTTGTATTTTAGTAGAGACGGGGTTTC 104  
QY 7636 accatgctggccaggctggtttcgaactcctgacctcaagtgatccgctcaccttggcct 7695  
|||||  
Db 103 ACCATGTTGGCCAGGCTGGTCTTGAACCTCCTGACCTCAGGTGATCCACCCACCTCGGCT 44  
QY 7696 cccatagtgttgccctccca 7715  
|||||  
Db 43 CCCAAAGTGTGGGATTACA 24